

**Listing of Claims**

1. (Currently Amended) A traffic information collecting and providing system utilizing a PCS network, comprising:

a PCS terminal for detecting and storing subscriber location information only once by in each of a plurality of service areas of each having respective base transceiver station stations, and transmitting the detected and stored subscriber location information to one of the base transceiver station; a plurality of stations, wherein the base transceiver stations are installed on roads of specific areas requiring traffic information and are capable of receiving location information from the PCS terminal;

a PCS network for transmitting the subscriber location information received from said one base transceiver station and detected by the PCS terminal ~~through the base station transceiver~~; and

a traffic information center for checking a traffic volume and congestion conditions by processing and statistically analyzing the subscriber location information transmitted through the PCS network, wherein the PCS terminal does not transmit the subscriber location information until a predetermined number of times of detection is reached,

wherein the predetermined number of times of detection is set according to a parameter value output from at least one of the base transceiver stations, and wherein said one base transceiver station is disposed at a service area through which the PCS terminal passes for a first time among the base transceiver stations.

2. (Currently Amended) The method according to claim 1, wherein the subscriber location information includes [consists of] the location of a subscriber and ~~the a~~ time at which the location is measured.

3-5 (Canceled)

6. (Currently Amended) The method according to claim 1 ~~[[4]]~~, wherein the PCS terminal transmits all ~~detected~~ location information detected in the service areas at once when ~~[[a]]~~ the predetermined number of times of detection of subscriber ~~detecting user~~ location information is reached.

7. (Currently Amended) A ~~[[a]]~~ traffic information collecting and providing method utilizing a PCS network, comprising ~~the steps of~~:

outputting a control signal from ~~[[a]]~~ at least one of a plurality of base transceiver stations installed on roads of specific areas requiring traffic information to a PCS terminal, which detects and stores subscriber ~~for detecting and storing~~ location information only once ~~[[by]]~~ in each of a plurality of service area areas respectively including the base transceiver stations;

collecting the subscriber location information ~~by using~~ from the PCS terminal;

transmitting the collected subscriber location information to the PCS network ~~through the base transceiver station;~~ and

processing the subscriber location information into a traffic information by statistically analyzing the subscriber location information transmitted through the PCS network, wherein the control signal is a parameter value for controlling a number of times the PCS terminal detects the subscriber location information.

8. (Canceled)

9. (Currently Amended) A traffic information collecting and providing The method ~~according to claim 7,~~ utilizing a PCS network, comprising:

outputting a control signal from at least one of a plurality of base transceiver stations installed on roads of specific areas requiring traffic information to a PCS terminal, which detects and stores subscriber location information only once in each of a plurality of service areas respectively including the base transceiver stations;

collecting the subscriber location information from the PCS terminal;

transmitting the collected subscriber location information to the PCS network; and

processing the subscriber location information into a traffic information by statistically analyzing the subscriber location information transmitted through the PCS network, wherein said at least one the base transceiver station is one disposed at a service area through which the PCS terminal passes for a [[the]] first time among the plurality of base transceiver stations.

10 44. (Currently Amended) The method according to claim 7, wherein the base transceiver station is plurally installed, and each base transceiver station is disposed on roads of specific areas requiring traffic information.

11 42. (Currently Amended) A traffic information collecting and providing The method ~~according to claim 7,~~ utilizing a PCS network, comprising:

outputting a control signal from at least one of a plurality of base transceiver stations installed on roads of specific areas requiring traffic information to a PCS terminal, which detects and stores subscriber location information in each of a plurality of service areas respectively including the base transceiver stations;

collecting the subscriber location information from the PCS terminal;

transmitting the collected subscriber location information to the PCS network; and

processing the subscriber location information into a traffic information by statistically analyzing the subscriber location information transmitted through the PCS network, wherein the PCS terminal detects subscriber location information only once by in each of the service areas of each including a respective one of the base transceiver stations.

12 43. (Currently Amended) The method according to claim 7, wherein the subscriber location information includes [consists of] the location of ~~a subscriber~~ the PCS terminal and a [[the]] time at which the location is measured.

13 14. (Currently Amended) The method according to claim 7, wherein the PCS terminal does not transmit the detected user location information until ~~a predetermined~~ the number of times of detection is reached.

14 15. (Currently Amended) The method according to claim 7, wherein the PCS terminal transmits all ~~detected~~ location information detected in the services areas at once when ~~a predetermined~~ the number of times of detection ~~detecting user location information~~ is reached.

15 16. (Currently Amended) The method according to claim 7, wherein the base transceiver stations provide ~~provides~~ general mobile communication call services and traffic information call services.

16 17. (Currently Amended) The method according to claim 7, wherein the PCS terminal has general mobile communication service functions and traffic information service functions

17 18. (Currently Amended) A ~~The~~ traffic information collecting and providing method ~~according to claim 7~~, utilizing a PCS network, comprising:

outputting a control signal from at least one of a plurality of base transceiver stations installed on roads of specific areas requiring traffic information to a PCS terminal, which detects and stores subscriber location information only once in each of a plurality of service areas respectively including the base transceiver stations;

collecting the subscriber location information from the PCS terminal;

transmitting the collected subscriber location information to the PCS network; and

processing the subscriber location information into a traffic information by statistically analyzing the subscriber location information transmitted through the PCS network, wherein ~~the step of~~ processing location information into a traffic information comprises ~~the steps of~~:

judging whether a subscriber of the PCS terminal is walking or in a running car, by comparing movement distance between measured intervals with respect to time when location information is measured; and

checking a traffic volume and congestion conditions of a specific interval by comparing the movement distance between measured intervals with a reference value, if the subscriber is in a running car.

18 49. (Currently Amended) The method according to claim 17 48, wherein if it is judged that the subscriber is not in a running car, or the movement distance between measured intervals is smaller than the reference value, the corresponding location information is removed.

19. (New) A method for determining vehicle traffic, comprising:

receiving location information from a mobile terminal;

detecting whether the mobile terminal is in a moving vehicle; and

if the mobile terminal is in a moving vehicle, determining traffic conditions along a route based on the location information.

20. (New) The method of claim 19, further comprising:

transmitting information indicative of the traffic conditions to another mobile terminal.

21. (New) The method of claim 20, wherein the traffic condition information is transmitted to the other mobile terminal in response to a request signal from the other mobile terminal.

22. (New) The method of claim 19, wherein the location information includes:

locations of the mobile terminal along the route; and

times when the locations were detected.

23. (New) The method of claim 22, wherein each of the locations is included within a respective one of a plurality of services areas of a mobile communication system.

24. (New) The method of claim 23, wherein only one location for each of the service areas is received.

25. (New) The method of claim 22, wherein the locations of the mobile terminal are received in a single transmission.

26. (New) The method of claim 25, wherein the single transmission is received after detection of a predetermined number of locations of the mobile terminal.

27. (New) The method of claim 26, wherein the predetermined number is indicated by a parameter transmitted to the mobile terminal.

28. (New) The method of claim 27, wherein the parameter is varied based on at least one of road conditions and traffic congestion along the route.

29. (New) The method of claim 22, wherein detecting whether the mobile terminal is in a moving vehicle includes:

comparing the times to a predetermined interval value; and

determining whether the mobile terminal is in a moving vehicle based on a result of the comparison.

30. (New) The method of claim 29, further comprising:

determining that the mobile terminal is being carried by a walking user based on a result of the comparison.

31. (New) The method of claim 19, wherein the mobile terminal performs mobile communication service functions and traffic information service functions.

32. (New) The method of claim 19, wherein the mobile terminal is a PCS terminal.



33. (New) The method of claim 19, wherein the location information is received from the mobile terminal through base transceiver stations located at predetermined positions along the route.

34. (New) A system for determining vehicle traffic, comprising:  
a network block which receives location information from a mobile terminal;  
a detector which detects whether the mobile terminal is in a moving vehicle; and  
a processor which, if the mobile terminal is in a moving vehicle, determines traffic conditions along a route based on the location information.

35. (New) The system of claim 34, wherein the network block includes a plurality of base transceiver stations, each in a respective one of a plurality of service areas of a mobile communication system for receiving location data from the mobile terminal.

36. (New) The system of claim 35, wherein first base transceiver station transmits a parameter to the mobile terminal indicating a number of times location detection is to be performed, and wherein a second base transceiver station receives the location information from the mobile terminal after location detection has been performed said number of times.

37. (New) The system of claim 36, further comprising:

transmitting information to change the parameter based on at least one of road conditions and traffic congestion along the route.

38. (New) The system of claim 35, wherein the location information includes only one location of the mobile terminal in each of the service areas.

39. (New) The system of claim 34, wherein the network block transmits information indicative of the traffic conditions to another mobile terminal.

40. (New) The system of claim 39, wherein the network block transmits the traffic condition information to the other mobile terminal in response to a request signal from the other mobile terminal.

41. (New) The system of claim 34, wherein the location information includes:  
locations of the mobile terminal along the route; and  
times when the locations were detected.

42. (New) The system of claim 41, wherein each of the locations is included within a respective one of a plurality of services areas of a mobile communication system.

43. (New) The system of claim 42, wherein the network block receives only one location for each of the service areas.

44. (New) The system of claim 41, wherein the network block receives locations of the mobile terminal in a single transmission.

45. (New) The system of claim 44, wherein the network block receives the single transmission after detection of a predetermined number of locations of the mobile terminal.

46. (New) The system of claim 41, wherein the detector detects whether the mobile terminal is in a moving vehicle by comparing the times to a predetermined interval value.

47. (New) The system of claim 34, wherein the network block is included in a PCS system.